

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A control gateway device comprising:
a first communication means device, communicably linked to a remote-control device and appliances, for communicating information receiving operation information from said remote-control device, wherein,
said operation information includes an instruction from one of users to control at least one of said appliances, and
said communication device includes a plurality of communication means selectively used according to a communication destination; and
a controller configured to control said gateway device, said controller including
a storage device for storing permitted appliance information in correspondence with each of said users, said permitted appliance information representing permitted appliances which each of said users is permitted to operate among said appliances, and storing control application programs respectively corresponding to said appliances, each of said application programs representing information processing to form control information from said operation information, and
a processing unit for
 - i) forming, based on said permitted appliance information stored in said storage device, first display information for prompting the user of a transmission source to select one of permitted appliances and controlling said communication device to transmit said first display information to said transmission source when said communication device receives user identification information identifying said user of said transmission source of said operation information and an authentication request requesting identification of said appliance,
 - ii) forming, based on transmission source information identifying the remote-control device of said transmission source, second display information representing a user interface for prompting said user of said transmission source to select an operation of the permitted appliance selected based on said first display information, and transmitting said second display information to said transmission source by said communication device,

iii) receiving, by said communication device as a reply to said second display information, information including said operation information and destination information identifying the selected permitted appliance, and converting, based on said application program, said received operation information to control information representing an operation control of said selected permitted appliance, and

iv) controlling said communication device such that said control information is transmitted to said selected permitted appliance

~~generation means for generating, based on operation information representing control contents of an appliance, received by said first communication means, control information representing an operation of said appliance, wherein said generation means includes~~

~~application storage means for storing a control application program representing information processing to generate said control information, and~~

~~operation means for generating said control information from said operation information by said information processing represented by said control application program, and~~

~~first control means for controlling said first communication means such that said control information is transmitted to said appliance.~~

2.-6. (Canceled)

7. (Currently amended) The ~~control gateway~~ device according to ~~claim 6~~ claim 1, further comprising ~~means for counting~~ wherein said processing unit records time when said received operation information is converted to control information~~time~~,

~~wherein information transmitted by said second control means further includes said processing unit further controls said communication device to transmit information representing said time to said transmission source.~~

8.-10. (Canceled)

11. (Currently amended) The control-gateway device according to claim 10, wherein said transmission source information includes user identification information identifying a said user of said transmission source and transmission source device information identifying a said remote-control device of said transmission source,

wherein said second control means includes means for controlling said processing unit controls said first communication means-device such that said information including transmission destination information is transmitted in a manner suiting the said remote-control device of said transmission source and said user of said transmission source based on said user identification information and said transmission source device information.

12.-30. (Canceled)

31. (Currently amended) A control method for controlling at least one of appliance by a remote-control device through a gateway device, comprising:

storing, in a storage device of the gateway device, permitted appliance information in correspondence with each of said users, said permitted appliance information representing permitted appliances which each of said users is permitted to operate among said appliances, and control application programs respectively corresponding to said appliances, each of said application programs representing information processing to form control information from said operation information;

communicating information, by communication device of the gateway device, with the remote-control device and at least one of the appliances, to receive from said remote-control device operation information including an instruction from one of users to control at least one of said appliances, wherein said communication device includes a plurality of communication means selectively used according to a communication destination;

forming, by a processing unit of said gateway device based on said permitted appliance information stored in said storage device, first display information for prompting the user of a transmission source to select one of permitted appliances and controlling said communication device to transmit said first display information to said transmission source when said

communication device receives user identification information identifying said user of said transmission source of said operation information and an authentication request requesting identification of said appliances,

forming, by said processing unit based in transmission source information identifying the remote-control device of said transmission source, second display information representing a user interface for prompting said user of said transmission source to select an operation of the permitted appliance selected based on said first display information, and transmitting said second display information to said transmission source by said communication device,

receiving, by said communication device as a reply to said second display information, information including said operation information and destination information identifying the selected permitted appliance, and converting, based on said application program, said received operation information to control information representing an operation control of said selected permitted appliance, and

controlling, by said processing unit, said communication device such that said control information is transmitted to said selected permitted appliance

said information including operation information representing control contents of an appliance,

generating said control information representing an operation of said appliance, based on said operation information received and a control application program representing information processing to generate said control information, and

transmitting said generated control information to said appliance.

32. (Canceled).

33. (Currently amended) A computer-readable recording medium having a control program for controlling at least one of appliances by a remote-control device through a gateway device recorded to cause a computer to realize the steps of:

storing, in a storage device of a gateway device, permitted appliance information in correspondence with each of said users, said permitted appliance information representing permitted appliances which each of said users is permitted to operate among said appliances, and

control application programs respectively corresponding to said appliances, each of said application programs representing information processing to form control information from said operation information;

communicating information, by communication device of the gateway device with the remote-control device and at least one of the appliances, to receive from said remote-control device operation information including an instruction from one of users to control at least one of said appliances, wherein said communication device includes a plurality of communication means selectively used according to a communication destination;

forming, by a processing unit of said gateway device based on said permitted appliance information stored in said storage device, first display information for prompting the user of a transmission source to select one of permitted appliances and controlling said communication device to transmit said first display information to said transmission source when said communication device receives user identification information and an authentication request requesting identification of said appliance;

forming, by said processing unit based on transmission source information identifying the remote-control device of said transmission source, second display information representing a user interface for prompting said user of said transmission source to select an operation of the permitted appliance selected based on said first display information, and transmitting said second display information to said transmission source by said communication device;

receiving, by said communication device as a reply to said second display information, information including said operation information and destination information identifying the selected permitted appliance, and converting, based on said application program, said received operation information to control information representing an operation control of said selected permitted appliance; and

controlling, by said processing unit, said communication device such that said control information is transmitted to said selected permitted appliance

said information including operation information representing control contents of an appliance,

— generating control information representing an operation of said appliance, based on said operation information received and a control application program representing information processing to generate said control information, and
— transmitting said generated control information to said appliance.